ISTEP+: Grade 7 Mathematics
Blueprint

Standard Assessed	Description	Percent Range *
1 – Number Sense	Questions may include comparing and ordering numbers; identifying rational and irrational numbers; solving problems involving scientific notation; computing whole number powers of whole numbers; applying the concept of square root; converting decimals to reduced fractions; and finding the prime factorization of numbers and writing the result using exponents.	9-19%
2 – Computation	Questions may include solving addition, subtraction, multiplication, and division problems with integers, fractions, and decimals; solving problems involving percent increase and decrease; and solving problems involving discounts, markups, and commissions.	6-16%
3 – Algebra and Functions	Questions may include writing and solving two-step equations and inequalities; representing verbal descriptions algebraically; evaluating and simplifying expressions using order of operations; solving equations for a particular variable; finding the slope of a line; graphing linear equations; identifying functions as linear or nonlinear; and solving problems involving constant and various rates of change.	15-25%
4 – Geometry	Questions may include solving problems that involve transformations of shapes (translations, reflections, and rotations) and solving problems involving the Pythagorean Theorem.	5-15%
5 – Measurement	Questions may include comparing measurements and solving problems that use similarity, relate to scale, involve perimeter and area of regular and irregular two-dimensional shapes, and contain surface area and volume of regular three-dimensional shapes.	9-19%
6 – Data Analysis and Probability	Questions may include organizing, interpreting, and analyzing data in appropriate graphs; making predictions from data; describing how additional data can affect the mean, median, and mode of a data set; analyzing data that may be misleading; analyzing survey questions that may influence survey results; solving problems involving probability; and finding the number of arrangements of several objects.	8-18%
7 – Problem Solving	Questions may include analyzing, sequencing, prioritizing, and identifying relevant and irrelevant information to solve problems; using various strategies, skills, and concepts to solve problems; justifying solutions using words and symbols; and determining if solutions are reasonable.	13-23%

* This range represents the approximate emphasis for each standard on the assessment.